Appendix 1: Search Strategies

SECTION 1: INITIAL PRESENTATION OF FN

Risk stratification and evaluation

Example based on Ovid MEDLINE and was then adapted for MEDLINE In-Process & Other Non-Indexed Citations, EMBASE, CINAHL and Literatura Latinoamericana y del Caribe en Ciencias de la Salud (LILACS).

1    Neutropenia/
2    (neutropenia or neutropenic).ti,ab.
3    1 or 2
4    Fever/
5    (fever$ or febril$).ti,ab.
6    4 or 5
7    3 and 6
8    adolescent/ or child/ or child, preschool/ or infant/ or infant, newborn/ or Puberty/
9    schools/ or schools, nursery/
10    (infan$ or newborn$ or new born$ or baby$ or babies or neonat$ or neonat$ or child$ or schoolchild$ or kid or kids or toddler$ or adoles$ or teen$ or boy$ or girl$ or minor$ or underage$ or under age$ or juvenil$ or youth$ or kindergar$ or nursery or puber$ or prepuber$ or pre puber$ or pubescent$ or prepubescent$ or pre pubescent$ or pediatric$ or paediatric$ or peadiatric$ or school or schools or preschool$ or pre school$ or schoolage$).ti,ab.
11    8 or 9 or 10
12    exp Neoplasms/
13    (cancer$ or neoplas$ or oncolog$ or malignan$ or tumo?r$ or sarcoma$ or leukaem$ or leukemi$ or chemotherap$).ti,ab.
14    12 or 13
15    11 and 14
16    7 and 15
17    (predict$ or clinical$ or outcome$ or risk$).mp.
18    16 and 17

Initial management of FN including drug choice, route of administration, and location of treatment

Ovid MEDLINE(R)
1    agranulocytosis/ or neutropenia/ or leukopenia/
2    fever/ or "fever of unknown origin"/
3    1 and 2
4    (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab.
5    3 or 4
6    (*clinical trial, all" or clinical trial).pt. or clinical trials as topic/
7    clinical trial, phase i.pt. or clinical trials, phase i as topic/
8    clinical trial, phase ii.pt. or clinical trials, phase ii as topic/
9    clinical trial, phase iii.pt. or clinical trials, phase iii as topic/
10    clinical trial, phase iv.pt. or clinical trials, phase iv as topic/
11    controlled clinical trial.pt. or controlled clinical trials as topic/
12    meta-analysis.pt. or meta-analysis as topic/
multicenter study/pt. or multicenter studies as topic/
randomized controlled trial/pt. or randomized controlled trials as topic/
or/6-14
cohort studies/ or longitudinal studies/ or follow-up studies/ or prospective studies/
case-control studies/ or retrospective studies/ or cross-sectional studies/
prognosis/ or disease-free survival/ or medical futility/ or pregnancy outcome/ or treatment outcome/ or treatment failure/
disease progression/
morbidity/ or incidence/ or prevalence/
mortality/ or cause of death/ or fatal outcome/ or hospital mortality/ or infant mortality/ or maternal mortality/ or survival rate/
survival analysis/ or disease-free survival/
natural history.tw.
predictive value of tests/
or/16-24
15 or 25
5 and 26
limit 27 to yr="1980 -Current"
limit 28 to english language

EMBASE
1 leukopenia/ or agranulocytosis/ or neutropenia/
2 pyrexia idiopathica/ or fever/ or (fever* adj5 unknown adj5 origin*).ti,ab.
3 1 and 2
4 febrile neutropenia/
5 3 or 4
6 ct.fs. or clinical trial/ or phase 1 clinical trial/ or phase 2 clinical trial/ or phase 3 clinical trial/
or phase 4 clinical trial/ or controlled clinical trial/ or randomized controlled trial/ or multicenter study/ or meta analysis/ or double blind procedure/ or single blind procedure/ or triple blind procedure/ or (random* or rct or rcts or ((singl: or doubl: or tripl: or trebl:)) and (mask: or blind:)).mp.
7 5 and 6
8 cohort analysis/ or longitudinal study/ or prospective study/ or case control study/ or hospital based case control study/ or population based case control study/ or retrospective study/ or cancer recurrence/ or cancer regression/ or cancer relapse/ or disease duration/ or disease exacerbation/ or prognosis/ or recurrent disease/ or reinfection/ or relapse/ or remission/ or tumor recurrence/ or tumor regression/ or survival/ or cancer survival/ or disease free survival/ or overall survival/ or survival rate/ or survival time/ or incidence/ or cancer incidence/ or familial incidence/ or morbidity/ or maternal morbidity/ or perinatal morbidity/ or newborn morbidity/ or mortality/ or cancer mortality/ or childhood mortality/ or embryo mortality/ or fetus mortality/ or infant mortality/ or maternal mortality/ or prenatal mortality/ or surgical mortality/ or perinatal mortality/ or newborn mortality/ or death/ or "cause of death"/ or dying/ or heart death/ or sudden death/ or child death/ or newborn death/ or prevalence/ or treatment outcome/ or disease free interval/ or treatment failure/ or drug treatment failure/ or (natural adj2 history).mp. (2419301)
9 5 and 8
10 7 or 9
11 4 and 6
12 4 and 8
13 11 or 12
14 limit 13 to english language
SECTION 2: ONGOING MANAGEMENT OF FN EXCLUDING EMPIRIC ANTIFUNGAL THERAPY

Ovid MEDLINE
1 agranulocytosis/ or neutropenia/ or leukopenia/
2 fever/ or "fever of unknown origin"/
3 1 and 2
4 (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab.
5 3 or 4 (1020)
6 limit 5 to yr="1980 -Current"

EMBASE
1 agranulocytosis/ or neutropenia/ or leukopenia/
2 fever/ or "fever of unknown origin"/
3 1 and 2
4 (febrile adj5 (neutropen* or granulocytop* or agranulocyto* or leukocytop??ni*)).ti,ab.
5 3 or 4
6 exp Anti-Infective Agents/
7 5 and 6
8 time/ or time factors/ or (discontinu* or duration* or stop or stops or stopped or stopping or cease* or cessation* or continue* or continuation).mp.
9 7 and 8

Cochrane Central Register of Controlled Trials
1 agranulocytosis/ or neutropenia/ or leukopenia/
2 fever/ or "fever of unknown origin"/
SECTION 3: EMPIRIC ANTIFUNGAL TREATMENT

**PUBMED**
1. Febrile OR fever
2. Neutropen* OR granulocytopen* (limited to children < 18 yrs)
3. fung* OR mycos*
4. 1 AND 2 AND 3

5. risk OR incidence
6. 4 and 5

7. diagnos*
8. radiograph* OR imaging OR “computerized tomography” OR CT OR “X ray” OR “magnetic resonance imaging” OR MRI
9. 7 AND 8
10. 4 AND 8

11. BAL OR bronchoalveolar lavage OR biopsy
12. 4 AND 11

13. biomarker; antigen OR galactomannan OR platelia OR β-D-glucan
14. 4 AND 13

15. empiric* therapy OR pre-emptive therapy OR therapy OR treatment
16. fung* OR mycos
17  15 AND 16
18  Limit 17 to children < 18 yrs